# **CHAPTER 24: Fire Safety**

his section provides general information regarding precautions that can be taken to prevent fire hazards in your printing establishment. In addition, some of the most common MIOSHA rules regarding fire exits and provision of portable fire extinguishers are explained.

### 24.1 General Fire Safety Precautions

Look for potential sources of fire ignition which may exist in your facility to eliminate hazards such as:

- Electrical Failures and Misuse of Electrical Equipment
  You can reduce these hazards by ensuring proper installation, maintenance, and use,
  conducting regular inspections, and providing job training to employees. Also, be sure to
  replace worn electrical cords and avoid overloading electrical circuits.
- Friction
   You can lessen the potential for friction through proper maintenance, lubrication, and frequent inspections of your equipment.
- Housekeeping and Maintenance
   You can reduce the potential of fires through attention to housekeeping. Immediately
   dispose of flammable wastes and scrap in metal containers with metal lids. Avoid
   excessive stockpiling, and put trash and paper in proper containers.

### 24.2 Fire Exits

Employers must provide a "means of egress" for employee use if a fire, explosion or natural disaster were to happen. A "means of egress" means the route your employees are to follow through the building, the exit door, and the route away from the building.

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#### Exit Doors

A door designated as a "means of egress" must be maintained so that employees can easily exit.

MIOSHA requires that these rules be followed:

- Do not lock exit doors so that escape from inside the building would be prevented. Doors shall never be chained, barred, bolted or latched when the building is occupied.
- Prohibit the use of locking devices that are difficult to open against door pressure (examples: slide bolts, hasps, hooks and eyes).

- Prevent the door from being blocked by debris, surplus stock, any mechanical equipment, or ice and snow.
- Maintain all door components in working condition.

#### Exit Signs

Be sure that exits are designated by a sign that is readily visible and identifiable from the distance that employees will have to travel. Exit signs must have letters at least six inches high and three-fourths inches wide, and must be illuminated by a light source or internally illuminated.

#### Path of Travel

Do not store flammable material in any part of a means of egress.

If the path that your employees must travel to leave the building is not immediately apparent from any point, then mark the route with directional signs.

### 24.3 Portable Fire Extinguishers

Under the MIOSHA *General Industry Safety Standards – Part 8, Portable Fire Extinguishers*, there are rules which establish minimum requirements for provision and maintenance of portable fire extinguishers.

Different types of extinguishers are required based on the type of hazard at the location.

As the employer, you must be aware of conditions in your workplace to determine whether these unique conditions exist which create a greater fire hazard. Contact your local fire department, fire marshal or the Michigan Department of Consumer and Industry Services (CIS) to obtain additional information or assistance with this determination.

### 24.3.1 Choosing an Extinguisher

The type of fire extinguisher needed depends on the type of fire hazard present. A fire is classified based on what fuels it. Extinguishers are rated to tell which types of fire they can put out:

Class of Fire	Type of Fuel	Approved Fire Extinguisher
"A"	Wood, Paper, Cloth	Type A; Type A-B; Type A-B-C
"B"	Gasoline, Paints, Oil	Type A-B; Type B-C; Type A-B-C
"C"	Electrical, Wiring, Fuse Box	Type B-C; Type A-B-C

ABC extinguishers are a good choice for establishments with fire potential from a variety of fuel types.

### 24.3.2 Location of Extinguishers

Fire extinguishers must be located where they can be easily seen and readily accessible along a normal path of travel. If the view of an extinguisher is blocked and the obstruction cannot be moved, then install a sign, color symbol or other means to indicate the location of the fire extinguisher.

### 24.3.3 Maintaining Extinguishers

Portable fire extinguishers must be maintained in proper working order. MIOSHA requires that:

- Extinguishers and hoses be inspected monthly or at more frequent intervals if required, to be sure the extinguisher:
  - is in its proper location;
  - has not been used or tampered with; and
  - does not have obvious damage, such as physical damage, external corrosion, or other impairments;
- Extinguishers be thoroughly inspected at least once a year to insure working order and that a tag is attached showing the inspection date;
- Defective extinguishers are removed from service and repaired before being put back into service; and
- Extinguishers are properly recharged with recharging material of the class specified on the extinguisher nameplate or recommended by the manufacturer for recharging.

## 24.3.4 Employee Training

Train employees on the evacuation procedures that should be followed in case of a fire or other emergency. Also, provide directions on proper use of fire extinguishers. Most fire extinguishers follow this technique:

- 1. *Pull*: Pull the pin or release other locking device.
- 2. Aim: Aim the extinguisher nozzle (horn or hose) at the base of the fire.
- 3. Squeeze: Squeeze or press the handle.
- 4. *Sweep*: Sweep from side to side at the base of the fire. Watch for reflash. Discharge the contents of the extinguisher.



Check the instructions for the extinguishers in your facility as foam and water extinguishers require slightly different action.

Copies of *Part 8 of the General Industry Safety Standards* can be ordered from the CIS, Bureau of Safety Regulation.